



Environmental Restoration Information System (ERIS)

US Army Environmental Command
Oversight South/Hawaii Branch

5 December 2007



Agenda

- **What is ERIS?**
- **ERIS Contents and Usage**
- **Using Lean Six Sigma to Manage Change**
- **Army Policy for ERIS Uploads**
- **Questions**



What is ERIS?

- ERIS is a Web-based database system for the storage of Army environmental field sampling data.
- ERIS serves as a central repository for the Army's installation chemical, geological, and geographical data.



ERIS Contents and Use

Record Type	Total in System thru 08/07	TOTAL SINCE JANUARY 2007
Field Samples	368,427	10,837
Results	19,001,695	346,936
Locations	211,301	4,194

- Approximately 12,000 samples being entered into ERIS per year
- Number of samples appears high, but taking into account IRDMIS / ERIS gap, this represents less than half of all sampling data generated by the Army

154 Installations with results in ERIS	
Top 10 Installations	# Results
Camp Edwards	1,909,828
Aberdeen PG	1,238,152
Fort McClellan	1,011,905
Badger AAP	728,798
Fort Campbell	697,283
Dugway PG	689,721
Picatinny	628,715
Fort Devens	538,765
Fort Carson	496,373
Sunflower AAP	474,044
Top 10 Total	8,413,584
Top 10 % of Total	44%



Using Lean Six Sigma to Manage Change

- Process integrates two approaches:
 - ✓ Lean increases efficiency and eliminates waste
 - ✓ Six Sigma improves quality
- LSS Phases
 - ✓ Define: identify purpose and scope
 - ✓ Measure: assess the current situation
 - ✓ Analyze: confirm hypotheses from Measure Phase
 - ✓ Improve: identify, test, and implement solutions
 - ✓ Control: maintain the benefits derived from the process



Define Phase - ERIS Business Case

- Comprehensive corporate electronic data source for the:
 - ✓ Storage of restoration and range field sampling data; and
 - ✓ Prevention of the absolute loss of sampling data
- Provide timely data to stakeholders in order to support decisions pertaining to:
 - ✓ Courses of action for cleanup sites and operational ranges
 - ✓ Research priorities on emerging contaminants and quantifying related cost requirements.



Define Phase - Problem Statement

- **(High Error Rate / Low Data Quality):** The Army's Environmental Restoration Information System (ERIS) does not effectively meet its Army-wide mission by serving as a central repository for Army restoration, compliance, and range sampling data due to the fact that **approximately 46% of sampling data (costing approximately \$34.5M/yr) is not being uploaded into ERIS.**
- **(Duplicative Efforts / NVA Waste):** Approximately two **workaround data calls are being fielded** by HQDA per year outside of ERIS in order gather data so that stakeholders can make informed decisions regarding emerging contaminants, LTM requirements, Land Use Controls, etc.
- **(High Costs):** The Army spends approximately 1.06 million per year on operations and maintenance of the ERIS system and approximately 75 million per year on collection of sampling data.



Measure Phase - ERIS Survey

- **Survey Overview and Goals**

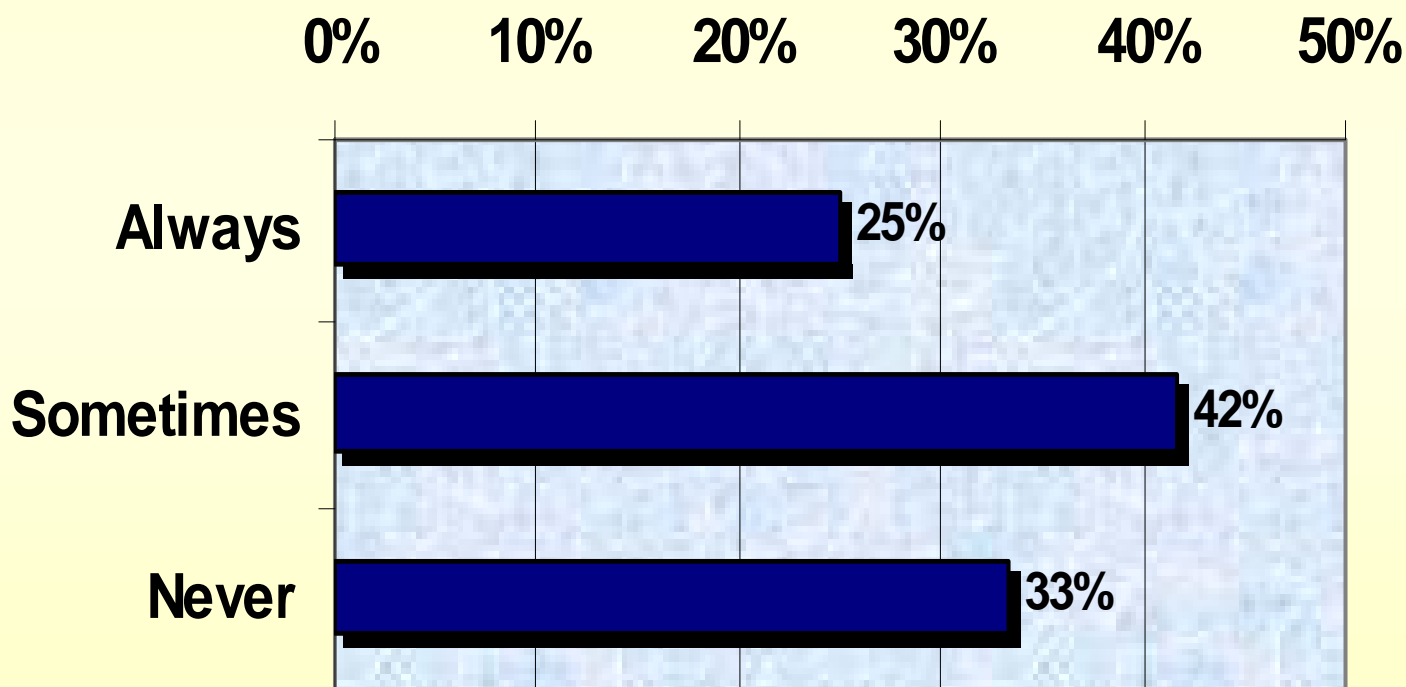
- ✓ To understand how installations use ERIS,
- ✓ What alternatives systems are in use
- ✓ What the impact would be if ERIS were not available to them
- ✓ Conducted 13-19 November 2007
- ✓ 36 Responses Received – THANK YOU!

- **Outcome**

- ✓ Supported earlier team analysis
- ✓ Confirmed root causes analysis
- ✓ Business case recommendations more defined



Has your installation's sampling data been uploaded into the Army's ERIS application?

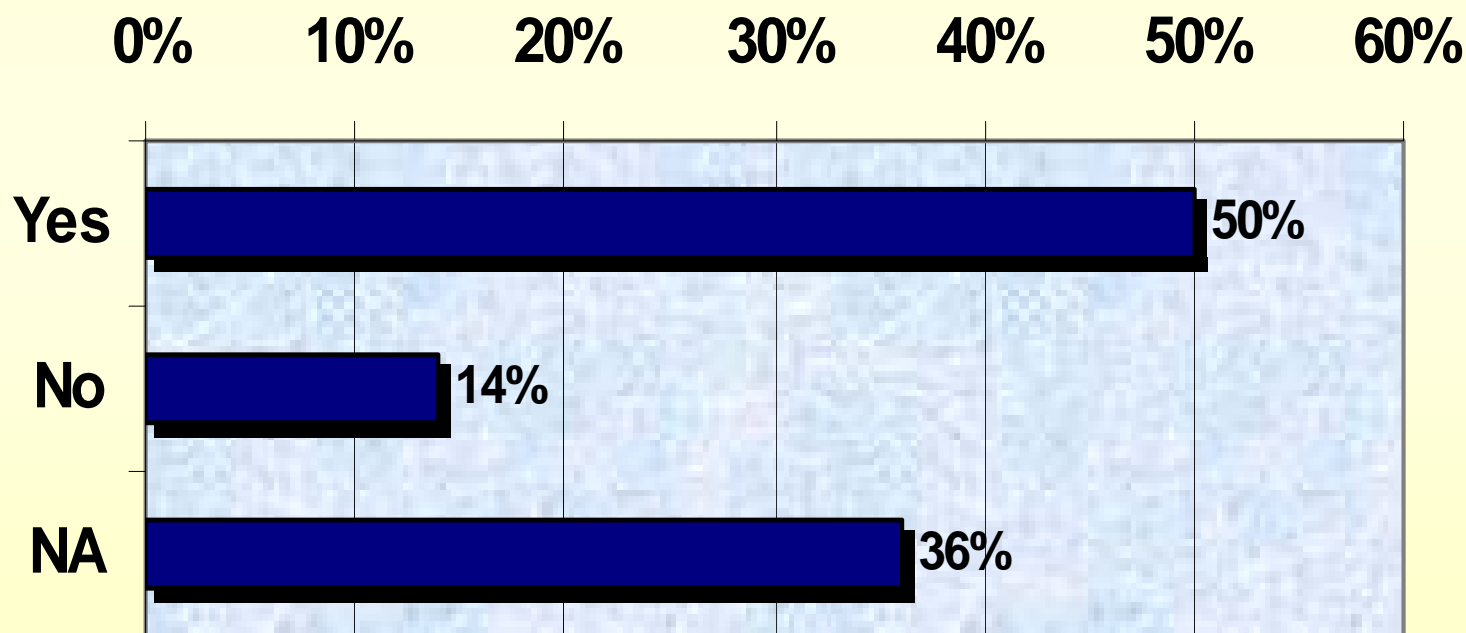


Source : ERIS user survey 13-19 Nov 07

36 Responses to this question



If your installation uses ERIS, are there other systems (ie. installation GIS, Access database) that your installation uses to store this data in addition to ERIS?

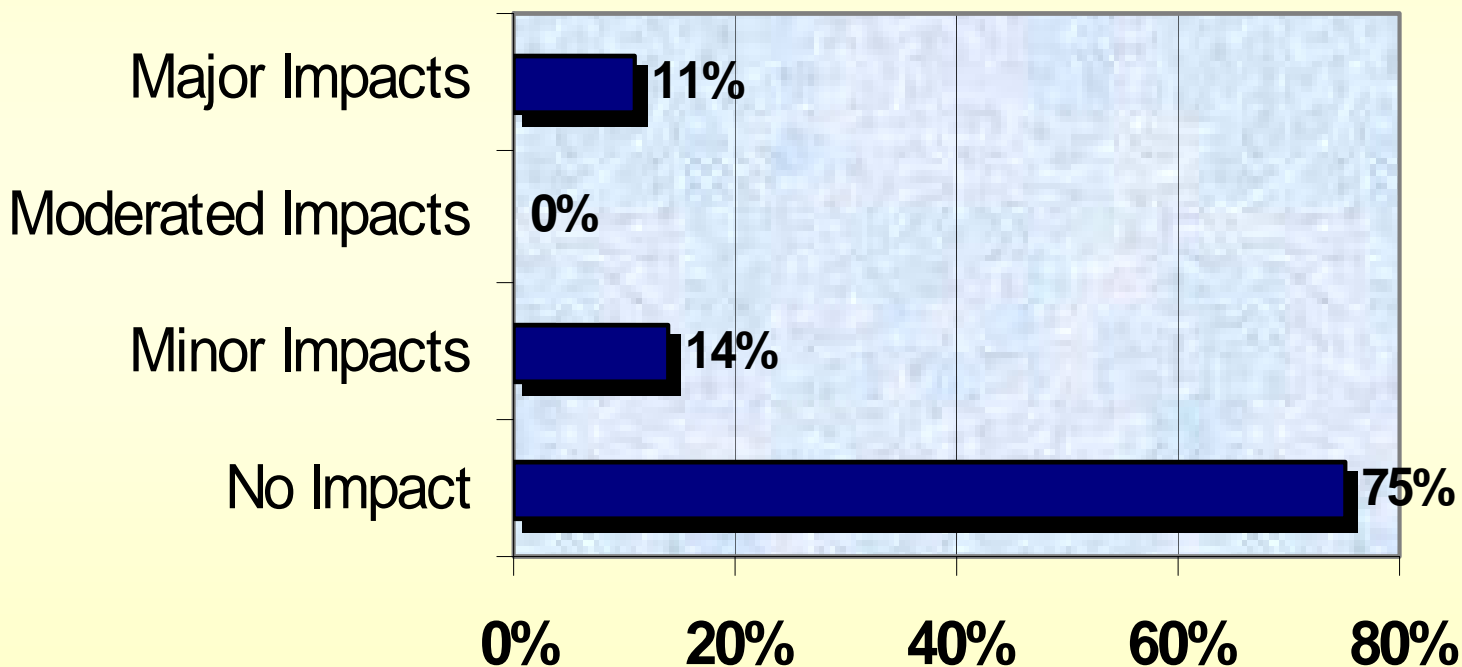


Source : ERIS user survey 13-19 Nov 07

36 Responses to this question



What would the impact be on your installation if the ERIS application were no longer available to your installation?

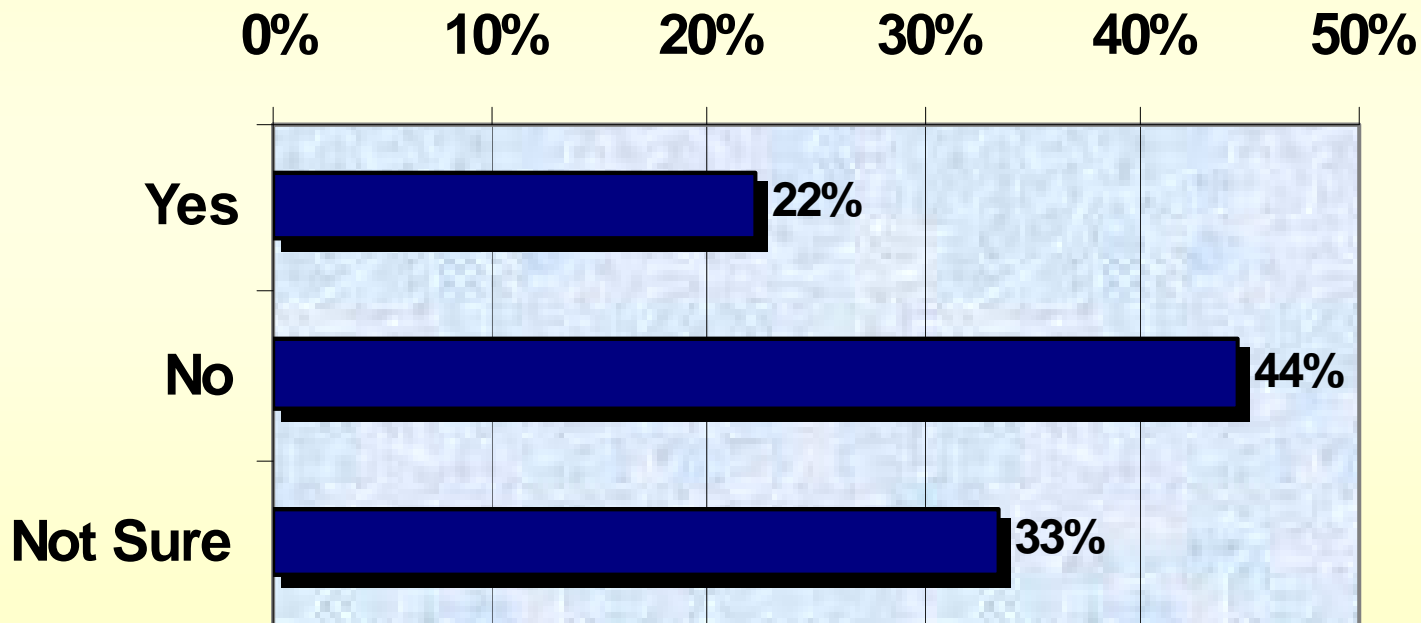


Source : ERIS user survey 13-19 Nov 07

36 Responses to this question



**Has your installation ever been unable to
locate any cleanup sampling data in the
past?**

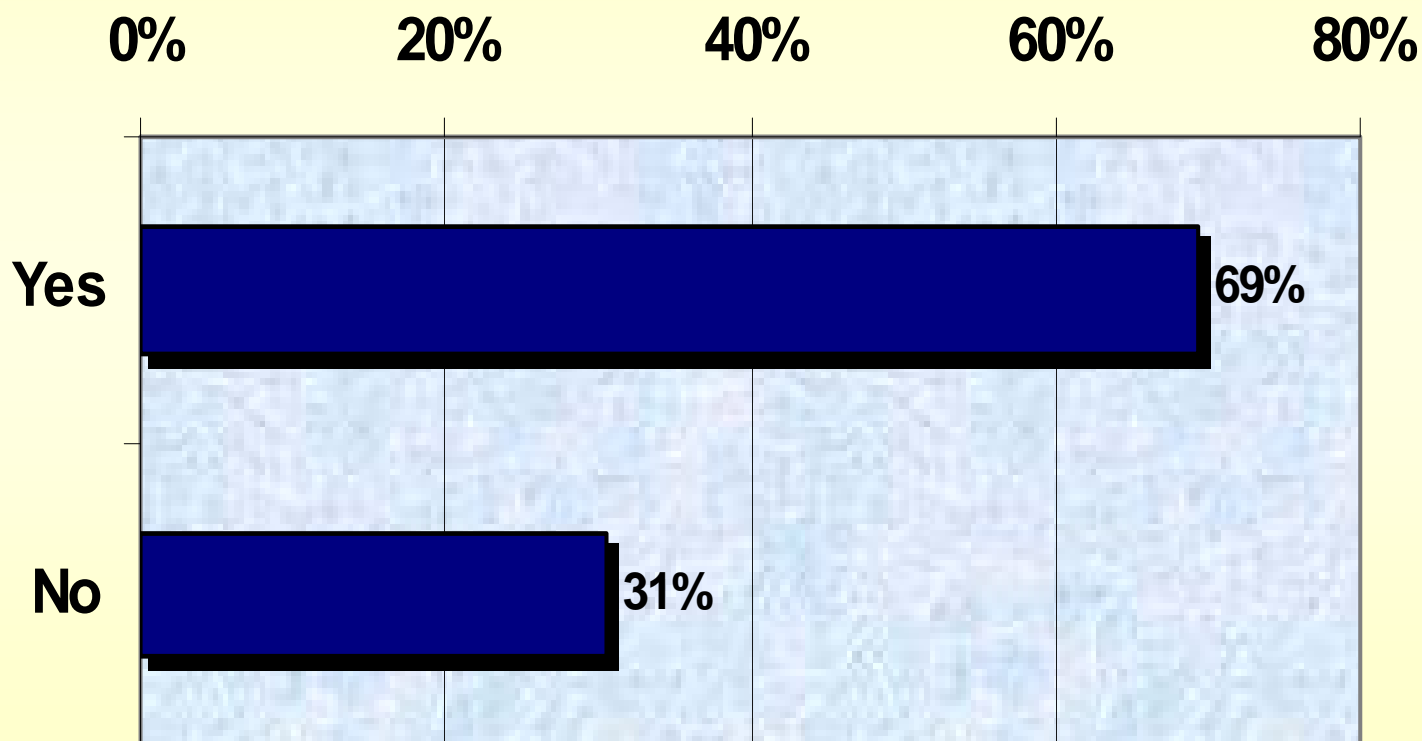


Source : ERIS user survey 13-19 Nov 07

36 Responses to this question



Are you familiar with Army Policy and Guidance on uploading Army sampling data?



Source : ERIS user survey 13-19 Nov 07

36 Responses to this question



Army Policy for ERIS Uploads

- ACSIM Memo (Feb 99), Subject: *Policy On Electronic Storage Of Environmental Restoration Data.*
 - ✓ Establishes Army Policy for storing environmental restoration data in a centralized database
 - ✓ Applies to ER,A and BRAC funded projects
- ACSIM Memo (Nov 03), Subject: *Implementation Guidance for the Use of the ERIS.*
 - ✓ Reinforces the 1999 Policy
 - ✓ Limits data storage to ER,A funded efforts
 - ✓ Requires Installations to modify existing laboratory contracts to meet ERIS requirements by 15 Jan 04.



Key Takeaways From Survey

- **Data Completeness**
 - ✓ Nearly one third of respondents replied that they are not familiar with Army policy for uploading sampling data
 - ✓ Confirmation of earlier analysis - at least half of sampling data being generated at the installation is not being uploaded into ERIS
- **Data is being lost**
 - ✓ A significant number (33%) of respondents indicate that their alternative to ERIS is hard copy filing, which can lead to loss of data
 - ✓ A significant number of respondents (22%) replied that their installation has been unable to locate cleanup sampling data in the past.
- **Most Installations would not be impacted by ERIS shutdown**
 - ✓ Most respondents (89%) indicate that there would be no or minor impacts if the ERIS application were no longer available to them
 - ✓ Half of respondents indicate that they have in place installation systems to manage their sampling data



Analyze Phase - Root Cause Analysis

- **Policy Issues**
 - ✓ Policy does not include all data being collected.
 - ✓ Not included in latest AR 200-1 revisions
- **Monitoring/Enforcement**
 - ✓ No responsible organization
 - ✓ No process to identify when sampling data is being generated
 - ✓ No established procedures to ensure data is uploaded
 - ✓ NSPS Objectives do not account for ERIS requirements
- **Training Marketing**
 - ✓ AEC ERMs and HQDA Proponents do not have required training
 - ✓ Marketing efforts are inadequate



Questions



END OF BRIEF

INSTALLATION MANAGEMENT COMMAND



“Sustain, Support and Defend”